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PATENT  
DOCKET NO.  
MTV-025.03  
(20021-2503)

In re Application of:

Buchwald, S. L., et al.

Application No: 10/774,070

Filed: 2/6/04

For: Protecting Groups Useful in the  
Synthesis of Polysaccharides,  
Natural Products, and  
Combinatorial Libraries

Art Unit: 1626

Examiner: Not Yet Assigned

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

In accordance with the provisions of 37 C.F.R. 1.97 and 1.98, Applicants hereby make of record the patents and publications listed on the accompanying Form PTO-1449, and other information contained herein, for consideration by the Examiner in connection with the examination of the above-identified patent application. Under 35 U.S.C. §120, this application has the benefit of the filing date of U.S. Patent Application 10/146,711, filed May 11, 2002; and U.S. Patent Application 09/717,197, filed November 21, 2000. Copies of all references listed in the Form PTO-1449 were submitted to the Office in the parent applications; therefore, copies of them are not required with this Statement.

**REMARKS**

In accordance with the provisions of 37 C.F.R. 1.97, this statement is being filed:

- ☒ (1) within three (3) months of the **filing date** of a national application other than a continued prosecution application under 37 C.F.R. 1.53(d), or within three (3) months of the **date of entry of the national stage** as set forth in 37 C.F.R. 1.491 in an international application, or before the mailing of the **first Office Action** on the merits, or before the mailing of a **first Office Action** after the filing of a request for continued examination under 37 C.F.R. 1.114; or
- ☐ (2) after the period defined in (1) but before the mailing date of a **final action** or a **notice of allowance** under 37 C.F.R. 1.311, and
- ☐ the requisite Statement is below, **OR**
- ☐ the requisite fee under 37 C.F.R. 1.17(p), namely **\$180.00**, is included herein, or
- ☐ (3) after the mailing date of a **final action** or **notice of allowance** but before the payment of the **issue fee**, **AND**
- ☐ the requisite Statement is below, **AND**
- ☐ the requisite petition fee under 37 C.F.R. 1.17(p), namely **\$180.00** is included herein.


It is respectfully requested that each of the patents and publications listed on the attached Form PTO-1449, and other information contained herein, be made of record in this application.

### STATEMENT

As required under 37 C.F.R. 1.97(e), Applicant(s), through the undersigned, hereby state either that [check the appropriate space only if either (2) or (3) is checked on the previous page and the Statement is required]:

- ☐ 1. Each item of information contained in the Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application **not more than three months** prior to the filing of the Information Disclosure Statement; or
- ☐ 2. No item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this Statement after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to **any individual** designated in 37 C.F.R. 1.56(c) **more than three months** prior to the filing of the Information Disclosure Statement.

Respectfully submitted,



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Attorney Docket No.: MTV-025.03

This collection of information is required by 37 CFR 1.8. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.8 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Form PTO-1449

**INFORMATION DISCLOSURE**  
**IN AN APPLICATION**  
*(Use several sheets if necessary)*

Docket Number (Optional)

MTV-025.03

Application Number

10/774,070

Applicant

Buchwald, S. L., et al.

Filing Date

2/6/04

Group Art Unit

1626

JUN 14 2004

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA	4,675,392	6/23/87	Dahmen et al.	536	17.6	11/21/84
AB	4,818,816	4/4/89	Petitou et al.	536	55.2	10/26/87
AC	5,094,848	3/10/92	Brixner	424	85.91	6/30/89
AD	5,221,736	6/22/93	Coolidge et al.	536	25.31	12/21/89
AE	5,464,759	11/7/95	Coolidge et al.	435	91.2	2/17/93
AF	5,470,949	11/28/95	Polt	530	322	12/15/92
AG	5,576,460	11/19/96	Buchwald et al.	564	386	7/27/94
AH	5,587,474	12/24/96	Kondo et al.	540	350	6/17/93
AI	5,616,698	4/1/97	Krepinsky et al.	536	18.6	1/10/94
AJ	5,767,254	6/16/98	Polt	536	17.2	6/6/95
AK	5,777,077	7/7/98	Albericio et al.	530	335	2/20/97
AL	5,817,877	10/6/98	Hartwig et al.	564	399	9/19/97
AM	5,837,866	11/17/98	Madga et al.	540	145	5/23/97
AN	5,840,485	11/24/98	Lebl et al.	536	6	5/26/94
AO	5,847,166	12/8/98	Buchwald et al.	549	355	10/10/96
AP	5,861,351	1/19/99	Albericio et al.	502	150	9/20/96
AQ	5,874,532	2/23/99	Pieken et al.	530	338	1/8/97
AR	5,977,361	11/2/99	Hartwig et al.	544	264	10/14/98
AS	6,001,966	12/14/99	Pieken et al.	530	338	8/6/98
AT	6,090,912	7/18/00	Lebl et al.	530	300	11/23/98
AU	6,166,226	12/26/00	Buchwald et al.	549	355	12/8/98

**FOREIGN PATENT DOCUMENTS**

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
AV	WO 00/20428	4/13/00	PCT				
AW	EP 0 337 920 B1	4/5/89	EPO				

**OTHER DOCUMENTS***(Including Author, Title, Date, Pertinent Pages Etc.)*

AX	Fukase et al.; "Novel Oxidatively Removable Protecting Groups and Linkers for Solid-phase Synthesis of Oligosaccharides", Molecular Diversity, 2:182-188, (1996)						
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Form PTO-1449		Docket Number (Optional) MTV-025.03		Application Number 10/774,070	
<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b> <i>(Use several sheets if necessary)</i>		Applicant Buchwald, S. L., et al.			
		Filing Date 2/6/04		Group Art Unit 1626	
	AY	Hartwig F. John; "Transition Metal Catalyzed Synthesis of Arylamines and Aryl Ethers from Aryl Halides and Triflates: Scope and Mechanism", Angew. Chem., Int. Ed. 37:2046-2067, (1998)			
	AZ	Koto et al.; "Some 2,3,4,6-tetra-O-(p-chlorobenzyl)-α-D-hexopyranoses", Carbohydrate Research, 87: 294-296, (1980)			
	BA	Kovalainen et al.; "Synthesis and Vitro Pharmacology of a Series of New Chiral Histamine H <sub>3</sub> -Receptor Ligands: 2-(R and S)-Amino-3-(1H-Imidazol-4(5)-yl)Propyl Ether Derivatives", J. Med. Chem. 42: 1193-1202, (1999)			
	BB	Nametz, Goemer; "p-Bromobenzyl Chloride", J. Am. Chem. Soc. 73: 2940, (1951)			
	BC	Patai, Weizmann; "p-Bromobenzyl Bromide", J. Am. Chem. Soc., 68:150 (1946)			
	BD	Plante et al.; "Halobenzyl Ethers as Protecting Group for Organic Synthesis", J. Am. Chem. Soc. 122: 7148-7149, (2000)			
	BE	Pohl and Kiessling; "Para-Chlorobenzyl Protecting Groups As Stabilizers of the Glycosidic Linkage: Synthesis of the 3'-O-Sulfate Lewis X Trisaccharide", Tetrahedron Letters 38(40): 6985-6988, (1997)			
	BF	Püschl et al.; "Solution Phase Synthesis of Dithymine Phosphorothioate by a Phosphotriester Method Using New S-Protecting Groups", Nucleosides & Nucleotides, 16(1&2): 145-158 (1997)			
	BG	Yamashiro Donald; "Protection of Aspartic Acid, Serine, and Threonine in Solid-Phase Peptide Synthesis", J. Org. Chem. 42(3): 523-525, (1977)			
	BH	"Catalog Handbook of Fine Chemicals", 1996-1997, Aldrich, Nederland, page 220, (1996); XP- 002164979			
	BI	International Search Report, Completed on April 20, 2001 and mailed on June 15, 2001			
	BJ	Wu, X. et al.; "Synthesis, Crystalline Structure, Conformational Analysis, and Azidolysis of Methyl 2,3-Anhydro-α-D-Manno-and- allop-yranoside p-bromobenzyl Ethers", Carboh. Res. 235: 163-178, (1992)			
	BK	Wu, E. et al.; "Synthesis and Conformational Analysis of Substituted 2,6-Dioxabicyclo(3.1.1.)Heptanes: 1,3-Anhydro-2,4-Di-O-Benzyl-And-2,4-Di-O-(p-Bromobenzyl)-β-1-Rhamnopyranose", Carboh. Res. 161: 235-246, (1987)			
EXAMINER				DATE CONSIDERED	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.					

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE